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10/829,189	04/22/2004	Yoshikazu Hayashi	2004_0608A	6055

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EXAMINER	
EKPO, NNENNA NGOZI	
ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/829,189	HAYASHI, YOSHIKAZU	
	Examiner	Art Unit	
	Nnenna N. Ekpo	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-13 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-13 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 27 August 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 09/08/2004.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The reference listed in the Information Disclosure Statement filed on September 08, 2004 has been considered by the examiner (see attached PTO-1449 form).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lu (US Publication Number 2002/0157115) in view of Tsurumi (US Patent Number 6,714,262) and Sadanaka (US Patent Number 6,751,197).

Regarding **claim 1**, Lu discloses a broadcasting signal receiver apparatus comprising (see fig 1 (150)):

a security device for storing security information on a broadcasting entity, and for extracting transmission information for receiving a broadcasting signal modulated in a

predetermined modulation mode from a control signal transmitted from an apparatus of the broadcasting entity (see paragraphs 0027, 0048 and fig 3 (300, 320)), and

a receiver for receiving the broadcasting signal transmitted from said apparatus of the broadcasting entity based on the extracted transmission information (see paragraph 0033, lines 14-18 and fig 3 (220)),

wherein said security device (POD module) is separated from said receiver (set top box), and can be mounted in said receiver (see fig 1 (150 & 155) and paragraph 0026, lines 1-3),

wherein said broadcasting signal receiver apparatus further comprises:

tuner for controlling a frequency of the received broadcasting signal to select a channel of a predetermined broadcasting signal (see paragraph 0038 and fig 3 (205));

a demodulator capable of demodulating the broadcasting signal transmitted from said apparatus of the broadcasting entity in a plurality of demodulation modes corresponding to modulation modes of modulation systems of the broadcasting signal, said demodulator demodulating the broadcasting signal of the channel selected by said tuner in a demodulation mode which is set among the plurality of demodulation modes (see paragraph 0033 and fig 3 (210) and paragraph 0026, lines 5-9);

a first controller for controlling the demodulation mode of said demodulator (see fig 3 (210));

a device detector for detecting whether or not said security device is mounted into said receiver (see claim 5 and 17),

when said device detector detects that said security device is not mounted into said receiver, controlling said tuner, said demodulator, and said first controller, and to retrieve the broadcasting channel on which the transmission information on the broadcasting signal is transmitted, for receiving the broadcasting signal on said retrieved broadcasting channel, for, when said synchronization judgment unit judges that said demodulator is synchronized with the broadcasting signal, extracting the transmission information on the broadcasting channel from the broadcasting signal demodulated by said demodulator, and for receiving the broadcasting signal based on the extracted transmission information on the broadcasting signal (see paragraph 0006, 0026 and 0029). However, Lu fails to specifically disclose a synchronization judgment unit for judging whether or not said demodulator is synchronized with the received broadcasting signal, and for outputting a synchronization judgment result signal.

Tsurumi discloses a synchronization judgment unit for judging whether or not said demodulator is synchronized with the received broadcasting signal, and for outputting a synchronization judgment result signal (see column 6, lines 35-43).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lu's invention with the above mentioned limitation as taught by Tsurumi for the advantage of presetting all receivable channels in a short time. However, Lu and Tsurumi fail to specifically disclose a second controller and changing at least one of the demodulation mode for said broadcasting signal and the frequency of said broadcasting signal.

Sadanaka discloses a second controller (controller (12)) and changing at least one of the demodulation mode for said broadcasting signal and the frequency of said broadcasting signal (see column 4, lines 29-42).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lu and Tsurumi's invention with the above mentioned limitation as taught by Sadanaka for the advantage of reducing cost of manufacture.

Regarding **claim 8**, Lu discloses an apparatus for controlling a demodulation mode comprising:

a demodulator capable of demodulating a received signal modulated in a predetermined modulation mode, in a plurality of demodulation modes corresponding to modulation modes of modulation systems of the received signal, said demodulator demodulating the received signal in a demodulation mode which is set among the plurality of demodulation modes (see paragraph 0033 and fig 3 (210));

a controller for controlling the demodulation mode of said demodulator (see fig 3 (210)).

However, Lu fails to specifically disclose a synchronization judgment unit for judging whether or not said demodulator is synchronized with the received signal, and for outputting a synchronization judgment result signal and wherein said controller controls the demodulation mode of said demodulation mode of said demodulator.

Tsurumi discloses a synchronization judgment unit for judging whether or not said demodulator is synchronized with the received signal, and for outputting a synchronization judgment result signal (see column 6, lines 35-43).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lu's invention with the above mentioned limitation as taught by Tsurumi for the advantage of presetting all receivable channels in a short time. However, Lu and Tsurumi fail to specifically disclose wherein said controller controls the demodulation mode of said demodulation mode of said demodulator.

Sadanaka discloses said controller controls the demodulation mode of said demodulation mode of said demodulator (see column 4, lines 29-42).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Lu and Tsurumi's invention with the above mentioned limitation as taught by Sadanaka for the advantage of reducing cost of manufacture.

Regarding **claim 2**, Lu, Tsurumi and Sadanaka discloses everything claimed as applied above (*see claim 1*). Lu discloses the broadcasting signal receiver apparatus (RF tuner (205)), wherein said second controller (signal selected by the cable subscriber) initializes a demodulation mode control processing executed by said first controller (cable service provider) immediately after the frequency of said tuner is changed (see paragraph 0051).

Regarding **claims 3 and 9**, Lu, Tsurumi and Sadanaka discloses everything claimed as applied above (*see claims 1 and 8*). Lu discloses the broadcasting signal receiver apparatus, wherein said first controller controls at least one of a modulation rate (see paragraph 0024), filter coefficients, and a constellation. Tsurumi discloses which are set to said demodulator (see fig 3) based on the synchronization judgment result signal from said synchronization judgment until said demodulator is synchronized with the received broadcasting signal (see column 6, lines 35-43).

Regarding **claims 4 and 10**, Lu, Tsurumi and Sadanaka discloses everything claimed as applied above (*see claims 1 and 8*). Lu disclose the broadcasting signal receiver apparatus, wherein said demodulator comprises a carrier recovery circuit which reproduces a carrier wave of the received broadcasting signal (see fig 3 (24), column 5, lines 21-65, column 6) and

Tsurumi discloses wherein said synchronization judgment unit judges whether or not said demodulator is synchronized with the received broadcasting signal based on a phase error of a demodulated signal reproduced by said carrier recovery circuit (see column 5, lines 52-65, column 6, lines 1-42).

Regarding **claims 5 and 11**, Lu, Tsurumi and Sadanaka discloses everything claimed as applied above (*see claims 1 and 8*). Lu disclose broadcasting signal receiver apparatus, wherein said demodulator comprises a clock recovery circuit which

reproduces a clock signal of the received broadcasting signal (see fig 3 (23), column 5, lines 21-65, column 6) and

Tsurumi discloses wherein said synchronization judgment unit judges whether or not said demodulator is synchronized with the received broadcasting signal based on a phase error of the clock signal reproduced by said clock signal recovery circuit (see column 5, lines 39-51 and column 6, lines 1-42).

Regarding **claims 6 and 12**, Lu, Tsurumi and Sadanaka discloses everything claimed as applied above (*see claims 1 and 8*). Lu disclose the broadcasting signal receiver apparatus, wherein said demodulator comprises an error correction circuit which corrects an error of the received broadcasting signal (see fig 3 (26), column 5, lines 21-65, column 6) and

Tsurumi discloses wherein said synchronization judgment unit judges whether or not said demodulator is synchronized with the received broadcasting signal based on whether or not a frame synchronous signal outputted from said error correction circuit can be detected (see column 6, lines 9-65, column 9, lines 30-35).

Regarding **claims 7 and 13**, Lu, Tsurumi and Sadanaka discloses everything claimed as applied above (*see claims 1 and 8*). Lu discloses the broadcasting signal receiver apparatus, wherein each of said first controller is constituted by a hardware circuit (see paragraph 0017, lines 13-19).

Tsurumi discloses said synchronization judgment unit is constituted by a hardware circuit (see column 6, lines 35-43 and fig 3 (2, 29)).

Citation of Pertinent Prior Art

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sullivan et al. (US Patent Number 6,069,647) teaches content security and providing conditional access to incoming digital content.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nnenna N. Ekpo whose telephone number is 571-270-1663. The examiner can normally be reached on Monday - Friday 7:30 AM-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on 571-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NNE/nne
October 2, 2007

ANDREW Y. KOENIG
PRIMARY PATENT EXAMINER